

History of the Offshore Oil and Gas Development in Louisiana

Introduction

The brave and foolhardy--this is how one individual described the pioneers of the offshore oil and gas industry. He was one of those pioneers who had worked in the business for many, many years.

The pioneers who developed the offshore industry, and dedicated their lives to working in it, are now in the sunset of their lives or have passed away. With their passing go the knowledge and memories of the risks, hard work, and inventiveness in which this industry was rooted.



The history of the offshore industry and its associated support industries is little known, understood, or documented. Because their dynamic role in the U.S. and world economies is virtually invisible, a major research

effort was undertaken to collect and archive the “oral histories” of these courageous explorers who helped to fuel growing populations.

Pirogues, Pack Mules, and Marsh Buggies

The move to explore and drill for oil over open water began over a century ago. In 1896, companies drilled in ocean waters from piers extending off the beach at Summerland, California. Gulf Oil drilled the world's first oil well in inland waters at Caddo Lake in 1911 – the first truly “offshore” well, detached from the shore. Drilling took place in the lakes, marshes, and bayous of Louisiana since the 1920's.



In the wooded swamps and thick marsh of the bayou country, geophysical crews turned to methods and equipment used by muskrat trappers. The trappers relied on flat-bottomed *pirogues* to navigate *trainasses*, tiny canals often carved out of the swamps and marshes by hand with the aid of a pirogue paddle. “You know, we benefited from the trappers,” remembered Pete Rogers, a long-time Shell hand who joined the company in 1935.



Oilmen began addressing the challenges of marine environments long before they began to think seriously about drilling offshore in the Gulf of Mexico. Exploring such environments tended to be a gradual and incremental process, involving the adaptation of land-based equipment and technologies to particular locations. Although drilling in open waters of the Gulf of Mexico had been taking place for some time, a historical marker for the offshore industry occurred in 1947, when Kerr McGee completed the first offshore well out of sight of land.

The history of offshore oil and gas in Louisiana is one of national and international interest. The entrepreneurial spirit was definitely thriving as the industry took on a life of its own. Companies were formed to provide specialty services: seismology, fabrication, drilling, production, transportation, tools and supplies, and food, just to name a few.



Helicopters, ships, steel, and computers have since replaced mules, marsh buggies, wooden derricks, and steam boilers as exploration has gone farther into hostile water depths of over 10,000 feet and measured drilling depths of over 33,000

feet. The Gulf of Mexico was the birth of the offshore industry, and those that gained expertise in this region were asked to provide their services in other parts of the world.



Claiming the Coastal Seas

The ocean is the last earth-bound frontier. In the words of Philip Steinberg, the ocean lies “outside the rational organization of the world, an external space to be feared, used, crossed, or conquered, but not a space *of* society.” To enable oil companies to extract hydrocarbons from beneath the seafloor in a rational manner, ocean space and submerged

lands had to be defined, claimed, governed, and managed. They had to be made part of society.

For many years, from the mid-1930's to the mid-1950's, the legal claims by the states and the Federal Government in the United States over control of submerged lands adjacent to the states dominated all questions about leasing offshore lands for the exploitation of oil and gas. This long-standing "Tidelands Controversy" was gradually settled by a series of Supreme Court decisions from 1947 to 1960 that granted Federal control usually beyond three miles from the coastline. The states and Federal Government established a working administrative framework for leasing while this legal issue was ongoing.



World War II Contributions to the Industry

By World War II, oil was recognized as being so important to the U.S. economy and national security that young men who worked on the seismic and drilling crews active in the swamps and shallow waters of southern Louisiana were kept home to continue their work. When the war ended, vast numbers of people and new technologies were poised for action. Wartime knowledge and experiences made workers particularly well suited to the oilfield. They brought with them technologies for transporting goods, fabricating large metal structures, and working underwater.

Workers on several small platforms being built offshore during the war remember scanning the horizon nervously in search of the periscopes of German submarines. But the war set in motion several processes that proved quite helpful to the offshore industry



when peace returned. First and foremost was the work of the U.S. Army's oceanography and weather service, which created a corps of well-trained specialists who forecast wind, wave, and soil conditions.

The war paved the way for post-war developments in many other ways. Much improved communications at sea could be adapted for use offshore. War-surplus vessels produced in great numbers to support amphibious landings could be purchased and converted for offshore uses at bargain basement prices after the war. Perhaps the most



important impact of the war, however, was on attitudes, not equipment. Veterans came back with a sense of urgency and a sense of adventure, two characteristics required of those who leaped out into the Gulf in search of oil after World War II.

Commercial Diving

Diving has a history that goes back thousands of years. Artifacts from Cretan sponge divers date back to 3000 B.C. and the Chinese were diving for oyster pearls as far back as 2200 B.C. As we fast-forward to modern times, many of us learned, shared, and enjoyed the wonders of the ocean with Jacques Cousteau and his entourage of divers.

Much has been learned about the ocean and yet it remains the last frontier on earth. The technology used to overcome the harsh ocean environment is akin to technology used in the space program. Advances in technology incorporating sound scientific research are encouraged by a Federal regulatory system. The development of new technology is encouraged to enhance current production in the deepwater region of the Gulf of Mexico.



The story of oilfield diving illustrates the complex interplay between human and technical achievements and is an important component of the history of the offshore oil and gas industry. The first diving operations in the Gulf of Mexico were little more than topside jobs completed underwater. Men recall jumping off boats, barges, and platforms to retrieve dropped objects, install clamps, or check for oyster beds. They did not have, nor perceive a need for, formal training as divers.

The offshore industry could not have progressed as it did, had it not been for the adventurous and entrepreneurial spirit of commercial divers. As soldiers returned from World War II, they were able to apply what they had learned in the Navy to diving for the oil and gas industry. The risk to divers was enormous and companies operated at the margins of

safety, but injuries, deaths, and expanding liability caught the attention of the oil companies. Rapidly rising insurance costs and fear of government intervention and of unionization among the divers led companies to organize the Association for Diving Contractors to develop industry standards and address safety concerns.

Technology and Strategy of Petroleum Exploration

It takes luck to find oil. Prospecting is like gin rummy. Luck enough will win but not skill alone. Best of all are luck and skill in proper proportion, but don't ask what the proportion should be. In case of doubt, weigh mine with luck (Everette DeGolyer, quoted in Knowles 1978, page 300).

It is the genius of a people that determines how much oil shall be reduced to possession; the presence of oil in the earth is not enough. Gold is where you find it, according to an old adage, but judging from the record of our experience, oil must be sought first of all in our minds (Wallace Pratt, quoted in Pratt 1943, page 1).

We usually find oil in new places with new ideas. When we go to a new area we can find oil with an old idea. Sometimes also we find oil in an old place with a new idea, but we seldom find much oil in an old place with an old idea (Parke Dickey, 1958, quoted in Dickey 2002, page 36).

My own view is that it's easy to find oil. It's hell to make money (Marlan Downey, 1991, quoted in Steinmetz 1992, back cover).

The quotes from DeGolyer, Pratt, Dickey, and Downey reveal the preoccupations with risk, failure, innovation, and fortune that have always characterized exploration. Taken from different points in time, these observations also demonstrate how exploration evolved from a crapshoot informed by hunches and rewarded largely by luck, to a sophisticated endeavor requiring vision, invention, and modern science in finding commercial prospects. With modern industry and indeed whole economies dependent on it, oil is still the greatest prize and exploration still the greatest game.

Capturing the history of the offshore industry presents special challenges; development and production do not occur in factories where the artifacts can be catalogued and the activities of workers and managers are regulated and can be readily investigated. Instead, the industry is a vast configuration of individuals and organizations working in numerous sectors responsible for exploration, drilling,



fabrication, transportation, and production. It comprises small, specialized companies and large, integrated corporations. As the industry has moved from solid land to encounter swamp, lake, marsh, shallow waters to the Outer Continental Shelf, and now depths greater than two miles, the companies and sectors have evolved and changed. Consequently, the industry provides an excellent case for examining the interplay of technology and work organization.